

CLAIMS

1. A data storage device for wirelessly communicating with a reader, the data storage device comprising:

storage means for storing data;

communication means for enabling wireless communication with a reader;

identification data storage means for storing identification data;

writing means for writing identification data to the identification data storage means;

extracting means for extracting identification data from a wireless communication to the communication means;

comparing means for comparing identification data extracted by extracting means with identification data stored in the identification data storage means; and

control means for controlling operation of the data storage device in accordance with the outcome of the comparison carried out by the comparing means.

2. A data storage device according to claim 1, wherein the identification data storage means comprises a write only memory portion.

3. A data storage device according to claim 1 or 2, further comprising:

enabling means for enabling writing of identification data to the identification data storage means.

4. A data storage device according to claim 3, wherein the enabling means is operable to enable writing of identification data to the identification data storage means in at least one of the following circumstances: 1) there is no identification data stored in the identification data storage means; and 2) in accordance with the outcome of the comparison carried out by the comparing means.

5. A data storage device according to any preceding claims, wherein the control means is operable to cause identification data to be stored by the

identification data storage means so that the identification data can not be accessed by a reader.

6. A data storage device according to claim 3, 4 or 5, wherein the control means is operable to control access to data in the storage means in accordance with the result of the comparison by the comparing means .

7. A data storage device according to claim 3, 4, or 5 wherein the control means is operable to enable access to at least some of said data in the storage means only in the event that the comparing means determines that there is a predefined relationship between identification data extracted by the extracting means and identification data stored by the storage means.

8. A data storage device according to any of the preceding claims, wherein the identification data storage means is configured to be writable to only once for storing identification data.

9. A data storage device according to any of the preceding claims, wherein the identification data comprises at least one PIN code.

10. A data storage device according to claim 9, wherein the extracting means is operable to extract a plurality of PIN codes, the comparison means is operable to compare a plurality of PIN codes and control means is operable to control operation of the data storage device in accordance with the outcome of the comparisons carried out by the comparing means.

11. A data storage device according to any of claims 1 to 9, wherein the identification data storage means comprises a plurality of storage portions, each storage portion being associated with different identification data, and wherein the

control means is operable to permit access to each storage portion of the storage means on the basis of identification data extracted by the extraction means so as to control operation of the data storage device.

12. A data storage device according to any of the preceding claims, wherein the control means further comprises determining means for determining the number of times the identification data communicated to the communication means does not have a predefined relationship with identification data stored by the identification data storage means.

13. A data storage device according to claim 11 or 12, wherein the control means further comprises locking means for locking the device in a disabled state in the event that the number of times the identification data communicated to the communication means does not have a predefined relationship with identification data stored by the identification data storage means reaches a predetermined number.

14. A data storage device according to claim 13, wherein the control means is arranged to unlock the device from a disabled state in the event predetermined identification information is communicated to the communication means.

15. A data storage device according to claim 12, 13 or 14, wherein the control means further comprises erasing means for erasing at least some of the data stored by the storage means in the event the determined number reaches a set number.

16. A data storage device according to any preceding claim, further comprising power supply deriving means for deriving a power supply from a reader signal to enable operation of the data storage device.

17. A data storage device according to any preceding claim, wherein the communication means is operable to communicate data to a reader by modulating the reader signal.

18. A data storage device according to any preceding claim, wherein the communication means comprises radio frequency communication means and the data storage device is operable to communicate with the reader primarily by inductive coupling.

19. A data storage device for wirelessly communicating with a reader to enable data to be read from the data storage device, the device comprising:

communication means for enabling wireless communication with a reader to enable receipt of a reader signal and to enable communication of data between the device and the reader,

wherein the device is initially arranged to communicate with different readers and, in response to receipt of a reader signal from a particular reader or a type of reader, is subsequently arranged to communicate with that reader or that type of reader.

20. A reader for communicating wirelessly with a data storage device in accordance with any of the preceding claims, the reader comprising:

storage means for storing identification data and other data;

communication means for enabling wireless communication; and

extracting means for extracting data from a signal received by the communication means, the reader having control means operable in a first mode in which the reader functions as a reader for reading data from a data storage device in accordance with any of the preceding claims and a second mode in which the reader functions as and has the features of a data storage device in accordance with any of the preceding claims.

21. A radio frequency communications system comprising a data storage device according to any of claim 1 to 19 and a reader comprising communication means for enabling wireless communication and extracting means for extracting data from a signal received by the communication means, the communication means being operable to communicate by inductive coupling of a radio frequency signal between the reader and the data storage device.

22. A product, apparatus, device or appliance comprising a data storage device in accordance with any of claims 1 to 19 or a reader in accordance with claim 20 or a system in accordance with claim 21.